



State of Utah

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August 24, 2000

TO: Minerals File

FROM: Doug Jensen, Reclamation Specialist *DJensen*

RE: Site Inspection, North Lily Mining Company, Tintic Project, M/023/007, Juab County, Utah

Date of Inspection: August 22, 2000
Time of Inspection: 9:00 a.m.
Conditions: Warm
Participants: Walt Schubert and Elwin Ewell, North Lily; Bob Bayer and Eric Holt, JBR; Doug Jensen, Lynn Kunzler, DOGM

Purpose of Inspection: To Review Noxious Weed Issues on Site and Review Topsoil Areas

We arrived at the site ~8:45, which was early for the 9:00- 9:30 meeting, so we rode up above the site to look over the topsoil borrow area. We noted the extent of the spotted knapweed infestation within the areas above the site. Bob Bayer (JBR) had requested a meeting at the site to review the noxious weed problem and the location of topsoil storage areas for possible quantification.

We returned to the site office at 9:00 and Elwin Ewell (North Lily Employee) had arrived. I questioned why the sprays were still running on the heap and not in the overflow pond as originally planned. Elwin indicated that a broken valve which controls the solution delivery to the heap prevented him from shutting down that portion of the line. He stated that the sprays in the overflow pond had been shut down on the previous day due to low water levels in the preg pond. The flow meter on the solution indicated that 85 gpm was being pumped to the misters in the preg pond and the heap. Upon my suggestion, he restarted the mister sprays in the overflow pond.

Lynn and I walked to the top of the heap to evaluate whether the spotted knapweed was among the vegetation that was starting to grow on the heap faces. Russian thistle is the predominant plant growing on the heap. The only spotted knapweed that was found on the heap was on the southern crest of the heap where several loads of topsoil had been placed several years ago in anticipation of top soiling the heap. There were about a dozen knapweed plants

located only in the piles of soil along with some cheat grass, there was no evidence that these weeds had spread from these small areas. Eight small pits had been dug on the top of the heap for testing purposes. We noted that the material that had been excavated was mostly fines, and could be used for a soil substitute if proper nutrients levels were introduced.

We next visited the south ditch, which is the area where the ADS pipe will be placed. Several loads of gravel had been placed in the ditch over a geo-tech pad, but not been spread to the requested 6 inch depth. We walked along the ditch to the area where the weir had been placed. The solution flowing through the weir was about 2.1 inches (27 gpm).

Walt Schubert (North Lily) had arrived on the site by the time we returned to the office. I requested that the valve on the spray line be fixed to allow Elwin to shut down the sprays on the heap. Heap drain-down profiles and the post-closure water management system design cannot be completed until the heaps are no longer used to evaporate water. Closure of the site this year is dependent on cessation of application of solution to the heap as soon as possible. The present inventory of solution in the ponds is low and use of the heaps as an area to evaporate solutions is not needed at this time. Elwin was changing the valve on the spray lines when we left the site.

Walt accompanied us on a tour of the site. We inspected the area where Elwin had placed patches to the ditch liner. Several of these patches that were in the ditch were failing. Walt and I agreed that the obvious problem with Elwin's patches is that the adhesive he is using is old and has lost most of the volatiles. Walt indicated that Rainy Day Products was supplying him with a new can of adhesive and he would have Elwin replace the patches that were failing.

Washed rock for the drain-base for the ADS placement had been delivered to the site. Several small piles of this material had been placed in the ditch to be spread to the requested 6 inch depth. The rock was being placed on a geo-pad material which will act as a cushion between the rock and the ditch liner. After the ADS is placed in the ditch, an additional 6 inch cover of drain rock will be placed over the drain pipe. This gravel filled area will act as a drain corridor for the heap solution. An examination of the washed rock showed that a majority, 80-90% plus, was uncrushed rock with rounded features. I indicated to Walt that the 6 inch rock requirement for placement under the ADS was not as critical as having the pipe placed with a consistent slope to allow for free drainage of solutions from the heap.

Bob Bayer and Eric Holt (JBR's hazardous waste person) arrived on the site at 10:45. Lynn and I addressed the noxious weed problem. A discussion of alternatives to placing soil on the heaps and possible consequences if we did, was discussed. We also discussed the concept of using heap material as a growth medium and suggested that Bob take a sample of the heap material for nutrient testing.

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We walked on the heap and showed Bob the knapweed plants growing on the soil material on the heap. I suggested that, if we chose not to soil the heap, we consider the burial on the heap of the small amount of soil that had been placed there. I also indicated that if we chose not to utilize the stockpiled soil, the areas where it is presently being stored would require some regrading. I stated that present slopes on the majority of the heap will need some regrading before revegetation is initiated. Lynn informed Bob that North Lily would need to initiate a vigorous weed control program starting next spring. Because of the viability of the knapweed seed, this program may take several years to complete.

While Bob accompanied us on a tour of the site, Eric and Elwin were performing an inventory of the materials around the site for classification and testing, if necessary. I will request a copy of this inventory when it is completed so that we are aware of the magnitude of the problem.

After a short discussion of site conditions and concerns, Lynn and I left the site ~12:30 and returned to Salt Lake.

jb
cc: Steve Flechner, North Lily Mining
Bob Bayer, JBR
Beth Wondimu, DWQ
Pam Grubaugh-Littig
Wayne Hedberg
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